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Serial No. 10/013,091
Amendment and Response to Office Action
Mailed: 25 July 2006

Authorization to Debit Account

It is believed that no extensions of time or fees are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 C.F.R. § 1.136(a), and any fees required (including fees for net addition of claims) are hereby authorized to be charged to Hewlett-Packard Development Company's deposit account no. 08-2025.

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Remarks / Arguments

Remarks

In the Office Action, the Examiner rejected to claims 1 – 27. The Examiner also objected to claims 3 and 21. By this paper, the Applicant has as presented arguments citing why claims should be allowable over citations. Claims: 1 - 27 are now pending. No new matter has been introduced. In view of the following remarks, the Applicant respectfully requests reconsideration and allowance of all pending claims.

Interview of 6 December 2006

Applicant would like to thank the Examiner for the chance to explain the invention and clarify its functionality as in addition to the redistribution of data already contained in the messages to multiple sources, also including aggregation which may take the form of statistics and analysis information such as in the case of error messages where patterns of individual messages over a specific timeframe may be an indication of imminent hardware failure. Though the examiner, during the interview, suggested replacing the term "*subscribing the enriched messages*" with "*delivering the enriched messages*," Applicant does not wish to make this change at this time. Despite Examiner's previous misunderstanding of the term's meaning prior to the interview, the term is clearly defined in the application as stated below in response to the rejection under 35 USC § 112. As the Examiner's incorrect interpretation of the term has now been pointed out, and the support for the Applicant's interpretation is clearly shown to be within

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the original application, Applicant feels there should be no further reason to maintain the rejection. As recommended by the Examiner during the interview, Applicant is resubmitting previous arguments along with new arguments and requesting reconsideration of all as presented below.

Response to Arguments

Under the heading of *Response to Arguments*, the Examiner stated: "*Applicant's [previous] arguments have been considered but are moot in view of the new ground(s) of rejection.*" Applicant notes that the Examiner's "*new ground(s) of rejection*" are copies of the previous rejections given in the Office Actions mailed 18 January 2006 and 29 June 2005. Thus, Applicant feels the same arguments from the previous response still apply and are responsive since the examiner has failed to address the issues presented in the Office Actions.

Claim Rejections under 35 U.S.C. § 112

Claims 1, 11, 15, and 16

The Examiner rejected to Claims 1, 11, 15, and 16 under 35 U.S.C. 112, second paragraph as indefinite. In particular, the Examiner states, "*[t]he claims recite the step of 'publishing' but nowhere else in the claim describe how to enrich publishing.*" Further, the Examiner states, the claims do not describe "*enrich subscribing.*"

Applicant calls attention to the claimed phrase "*enriching the messages with information from that event and/or corresponding information extracted from the central repository, thus creating enriched messages.*" (Application 10/013,091, Claim 1, 11, 15) and "*to operate as a*

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dynamic central repository that consolidates information from across the enterprise ... to know what particular information any one of the applications needs ... the particular information enriching messages to which the applications subscribe" (Application 10/013,091, Claim 16)

Further, Applicant would like to respectfully call to the Examiner's attention Manual of Patent Examining Procedure which states "*The words of a claim must be given their 'Plain Meaning' unless they are defined in the specification.*" (USPTO MPEP section 2111.01(I)) With this in mind Applicant refers Examiner to the specification which states "*Information and updates thereof are communicated (published) from and received (subscribed) by applications to the ZLE hub by way of adapters.*" (Application 10/013,091, Page 4, Lines 16 – 18) and "*Publish and Subscribe -- respectively, refers to pushing data into and pulling data out of a system or system module. Pushing data involves for example any one or a combination of allocating, writing, inserting and saving data. Pulling data involves for example any or a combination of selecting, requesting, reading, and extracting data. [Pulling] and pushing data may additionally involve sending and/or receiving the data by means of messages.*" (Application 10/013,081, Page 7, Lines 15 – 19)

Further, Applicant notes the term "*Publish and Subscribe*" or the corresponding "*publish/subscribe*" are known art terms describing a system where Publishers are loosely coupled with Subscribers, and needn't know of their existence. Publishers post messages to an intermediary Broker; and, Subscribers register subscriptions with that broker. Messages are sent from a publisher to a broker, i.e. *Published*, where they are classified in any of a number of methods which are beyond the scope of this application. Brokers then forward messages of a

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given classification to subscribers who have registered as being interested in said classification, i.e. *Subscribed*.

As support for Applicant's claim that "*Publish and Subscribe*" or "*publish/subscribe*" are known art terms in use prior to Original Application filing on 7 December 2001, following format recommended by WIPO Standard ST.14, listed in MPEP 707.05(3) (IV), Applicant cites the following:

"Publish and Subscribe was a document linking model introduced by Apple Computer in System 7. It extended the existing cut and paste editing model with a notification system ... "

(Wikipedia [online] [retrieved 8 May 2006]. Retrieved from the Internet: <URL: http://en.wikipedia.org/wiki/Publish_and_Subscribe>).

System 7 (codenamed Big Bang) is a version of the Mac OS, the operating system of the Apple Macintosh computer. Various versions of System 7 were in widespread use from the early 1990s up until 1997... " (Wikipedia [online] [retrieved 8 May 2006]. Retrieved from the Internet: <URL: http://en.wikipedia.org/wiki/System_7_%28Macintosh%29>)

"ColorStudio will support standard System 7 features like TrueType, publish and subscribe, Apple Events, and the soon-to-become-obnoxious balloon help." [emphasis added] (Allen, Timothy, 'SevenBITS/ 20-May-91'. In TidBits #62 / 20-May-91 (Web publication covering the Macintosh Community) [online] [retrieved 10 May 2006]. Retrieved from the Internet: <URL: <http://www.tidbits.com/tb-issues/TidBITS-062.html>>)

The terms, "*Publish and Subscribe*" or "*publish/subscribe*", are known art terms. The terms, "*Publish and Subscribe*" or "*publish/subscribe*", were defined by Applicant both

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implicitly and explicitly within the application as originally filed. The terms, "*Publish and Subscribe*" or "*publish/subscribe*", were not defined by Applicant in opposition to the term definitions known in the art. The Applicant request the Examiner withdraw rejections to these claims or explain why these terms are not acceptable.

Claim Rejections under 35 U.S.C. § 102

In the Office Action, the Examiner rejected claims 1 - 3, 5 - 8, 10 - 13, 15 - 16 and 19 - 22 as being anticipated by Stewart (US 2002/0013759). The Applicant respectfully contests these rejections below.

Claims 1, 11, and 15

The Applicant respectfully asserts that the Stewart reference cited fails to teach "*information from the plurality of events being aggregated in the central repository where the aggregated information can, in real-time be accessible and available for extraction and analysis from across the enterprise*" [emphasis added]. Stewart teaches storage in the c-hub of "*information required to configure the c-hub in order to provide support for multiple protocols within a c-space*" [emphasis added]. (Stewart, Paragraph [0150]) The reference goes on to list types of information, including "*in some instance a portion of the message itself*" [emphasis added] (Stewart, Paragraph [0150]). The Applicant asserts that a portion of the message (a single message) is not equivalent with "*information from the plurality of events being aggregated in the central repository*" and as information is stored to "*configure the c-hub*" it has no value in later "*extraction and analysis from across the enterprise*".

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The Examiner further cites page 13, paragraph [0139]. As page 13 does not include a paragraph [0139], Applicant assumes the examiner is referring to paragraph [0139] found on page 11. Stewart states *"the workflow server can pass messages to the c-enabler by XML, which then communicates these messages to the c-hub. Messages from the c-hub are then similarly passed by the c-enabler to the workflow server"* [emphasis added] (Stewart, Paragraph [0139]). Applicant again asserts that a single message being passed between system components is not equivalent with *"information from the plurality of events being aggregated in the central repository"* and has no value in later *"extraction and analysis from across the enterprise"*.

The Examiner also cites *"The XPATH expression is evaluated against a message-context XML document generated by the XOCP filter module. It contains information extracted from the message context and the repository"* (Stewart, Paragraph [0227]). The Applicant again asserts that this is not an anticipation of the Applicant's invention because the cited reference describes a filter process used for the publishing of a single message and not a method of aggregating or analyzing the data from multiple messages. Further, no method is provided to allow information to be *"in real-time ... accessible and available for extraction and analysis from across the enterprise."* To support this, the Applicant calls attention to Stewart's teaching that XPATH filters are *"filters that are defined by an administrator and associated with a trading partner. ... When the c-hub routes a message to a trading partner with the XOCP protocol, the XPATH filter is used to examine the message context and determine whether to send the message to the trading partner or not"* [emphasis added] (Stewart, Paragraph [0227]). This statement demonstrates rather than making information accessible and extractable across the enterprise, the

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opposite is being done. XPATH filters are a means of limiting the information seen by a subscriber to the system, and this limit is put in place by the administrator of the system, not by the subscriber.

As none of the cited references cited by the examiner teaches "*information from the plurality of events being aggregated in the central repository*", nor does it teach "*enrich messages with information*," and further there is no method to enrich messages as the central repository described by the reference is simply a repository for filters and routing rules. Stewart fails to teach "consolidate[ing] (or aggregate[ing]) respective information from the plurality of events. ...Accordingly, the aggregated information can, in real-time, be accessible, and available for extraction and analysis from across the enterprise." (Application 10/013,091, Lines 24 – 29)

The Applicant therefore request the Examiner withdraw rejections to these claims.

Claims 2 and 12

The Examiner states: "*Regarding claims 2 and 12, Stewart discloses wherein the central repository operates as an information broker between applications...*" The Applicant asserts that the referenced paragraphs teach "*The c-hub maintains contextual information about interactions between trading partners*" (Stewart, Paragraph [0214]). The cited reference does not teach aggregating of information, and does not "*enrich messages with information*," and in no way could enrich messages as the central repository described by the reference is simply a repository for filters and routing rules. Stewart fails to teach "consolidat[ing] (or aggregat[ing]) respective information from the plurality of events. ...Accordingly, the aggregated information

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can, in real-time, be accessible, and available for extraction and analysis from across the enterprise." (Application 10/013,091, Lines 24 – 29)

The Applicant request the Examiner reconsiders and withdraw rejections against these claims.

Claims 5 and 20

While Stewart does teach storing schema in a central repository, said schema is described by Stewart for "*C-hub routing and filtering features*" (Stewart, Paragraph [0219]) While filtering may reduce message counts by failing to pass some messages from the publisher to the subscriber based on a pre-defined rule-set. It does not encompass aggregating information between multiple messages, storing information from those messages in a central repository, nor does it encompass enriching message content.

The Applicant requests the Examiner reconsider and withdraw rejections against these claims.

Claim 6

The Examiner rejects claim 6 stating: "*Stewart discloses wherein the applications cause the updating of aggregated information at the central repository upon a change of information in their environment. (See page 14, paragraph [0219-0220].*" The Applicant notes the citing does not discuss applications causing the updating based on environmental changes. Stewart teaches "*the repository provides a pre-defined set of entity definitions (and associated properties)...*" [emphasis added] (Stewart, Paragraph [0218]) and "*extended properties are organized ... using*

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the c-hub administrator console" [emphasis added] (Stewart, Paragraph [0219]). Applicant further calls attention to *"an administrator console, which allows the c-space owner or designated administrator to configure and manage services and c-spaces using a Web browser"* [emphasis added] (Stewart, Paragraph [0208]).

The Applicant requests the Examiner reconsider and withdraw rejections against these claims.

Claim 7

Claim 7 is directed to messages being subscribed and published in XML. Applicant agrees that Stewart does teach that messages can be formatted in XML. However, Applicant's Claim 7 is dependant on Claim 1 and Stewart fails to teach all limitations of Claim 1, as stated above. Therefore, Applicant request that Examiner withdraw rejection against this claim.

Claims 8 and 13

Claims 8 and 13 are directed to the central repository's bases on a database. The Examiner states that *"Stewart discloses wherein the central repository is based on a database."*, and cites paragraphs [0137 – 0139] to support this. The Applicant directs the Examiner to the above remarks concerning Claim 6 which refute the use of a database to store updated information from new events.

Claims 10

The Examiner cites paragraphs 0227 and 0228 stating that Stewart discloses messages can include extracted information that was previously published to the central repository by other

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applications. The Applicant wishes to call attention to the phrase "*the XPATH filter is used to examine the message context and determine whether to send the message to the trading partner or not.*" (Stewart, Paragraph [0227]) There is no teaching of modifying the message, only of deciding to forward or discard it. The only teaching of extracting message content is in generating the XML document from the message to establish the XML generated document which is matched against the XPATH filter to make the forwarding decision. Stewart does not teach storing this XML generated document in any form other than as a generic template stored in the repository at design time. (Stewart, Paragraph [0279]) Since this information is not stored, it can not be aggregated or made available for inclusion in later messages.

Claim 16

The Examiner states Stewart teaches "*to operate as a dynamic central repository that consolidates information from across the enterprise*". Applicant argues Stewart does not teach a "*central repository that consolidates information from across the enterprise*" but only teaches "a conversation repository for storing conversation **management data**" [emphasis added] (Stewart, Paragraph [0034]) . Applicant also calls the Examiners attention to the phrases "*information enriching messages*" and "*consolidated information with information from messages published by the applications*". These limitations are not supported by the cited Stewart reference as discussed above with regards to claim 1, 2, 11, 12, and 15. The Applicant therefore requests the Examiner withdraw rejections to this claim.

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Claims 19

Examiner states "Stewart discloses wherein the particular information for enriching messages subscribed to by an application can be information previously published by another application," citing paragraphs [0226] and [0227]. Applicant respectfully points out that the cited paragraphs do not describe this. Cited paragraphs describe using XPATH filters to examine message content and **determine routing** of the particular message to the correct trading partner. Further, it describes the filters as being defined by an administrator, implying a manual process (Stewart, paragraphs [0226 – 0228]). This routing of a message is not compilation of the message, but rather examination of an already created message, and is certainly not enriching of the message with information from previously published messages.

The Applicant therefore request the Examiner withdraw rejections to these claims.

Claim 22

Claim 22 should be allowable due to its dependence on claim 16. The Applicant directs the Examiner to the remarks above concerning claim 16.

The Applicant therefore request the Examiner withdraw rejections to these claims.

Claim 23

Cited paragraph 0083 describes controlling many workflows for collaboration among different companies. It describes how this is done by "sophisticated routing and filtering mechanisms" which route messages from "different trading partners ... to the appropriate recipients." Applicant fails to see how Examiner finds any teaching of personalized feedback

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and/or customized offers in real time to customers while customers are still engaged. Further, as claim is dependant on Claim 16, Applicant refers also to the remarks above concerning claim 16.

The Applicant therefore request the Examiner withdraw rejections to these claims.

Claim 24

Cited paragraph 0059 describes data being analyzed in real time by the trading partners, not the central repository as claimed by the Applicant. Further, as claim is dependant on Claim 1, Applicant refers to the remarks above concerning claim 1.

The Applicant therefore request the Examiner withdraw rejections to these claims.

Claim 25

Cited paragraph 0059 describes data being analyzed in real time by the trading partners, not the central repository as claimed by the Applicant. Further, as claim is dependant on Claim 16, Applicant refers to the remarks above concerning claim 16.

The Applicant therefore request the Examiner withdraw rejections to these claims.

Claim 26

Stewart discloses in paragraph 113, "loosely coupled communications", not "loosely coupling applications". Further, while Stewart describes in paragraph 0089 that logic plug-ins allow customer to provide additional processing of the information. Stewart does not describe what that processing is or provide any type of functionality for the C-hub other than that of routing and translating messages between protocols. Further, as claim is dependant on Claim 16, Applicant refers to the remarks above concerning claim 16.

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The Applicant therefore request the Examiner withdraw rejections to these claims.

Claim 27

Applicant fails to see where the Examiner finds evidence of information mining and/or analysis in fig 6 of the Stewart application. Stewart shows in fig 6 a simplified version of the c-hub architecture.(Stewart, paragraph [0090]). This is a single customizable application. Further, this diagram does not indicate any connection points, hooks, or interfaces for connecting any type of additional data processing applications or "technology adapters."

Messages are shown to come into the system, (172) process through the Transport (174), Scheduler (178), and Router (182) then back out. The components labeled as Decoder, Encoder are specified in paragraph 0090 as being "*made available for customers to change or access,*" but paragraphs 0096 and 0108 describe the functionality of these components are translating messages between protocols. It is a far stretch to say this functionality is "data analysis," and it is clearly not data mining. Stewart give no instruction that would lead one to believe it is being performed on more than a single message at a time. The other components which Stewart describes are being "*made available for customers to change or access*" are the Conversation Management (190) and Repository (192), which respectively handle the management of message channels and the routing and filtering of messages between trading partners.

Based on these observations the Applicant argues that Figure 6 does not disclose "*a plurality of applications for performing information mining and/or analysis ... loosely coupled to the ZLE virtual hub via said technology adapters*" as alleged by the Examiner. Further, as claim

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is dependant on Claim 26, and indirectly on claim 16, Applicant refers to the remarks above concerning claims 26 and 16.

The Applicant therefore request the Examiner withdraw rejections to these claims.

Claim Rejections under 35 U.S.C. § 103

Claims 4 and 18

In the Office Action, the Examiner rejected claims 4 and 18 as being unpatentable over Stewart (US 2002/0013759), in view of Schmidt (US 2002/0026630). As stated above under remarks regarding the 35 U.S.C. § 102 rejections of claims 1, 11 and 15, Stewart fails to teach or suggest aggregating data from multiple messages. This teaching is also not found in the Schmidt reference, which may be summed up as aggregating functionality from multiple applications in the development of newer, all encompassing applications, hardly a real-time operation. The cited paragraphs in the Schmidt discuss logical modeling of business data. Flow through an enterprise. Further as the Schmidt patent is concerned, among other things, determining business data flow in an effort to modeling that data flow, test the model, then develop, test and deploy new applications, which can integrate the capabilities of the original individual applications into a single new application. It is not applicable to the applicant's invention as it destroys some of the fundamental concepts of applicant's invention of being operable in an zero latency enterprise, being responsive to events, and aggregating information in real-time. Schmidt's very title "Enterprise Application Integration Methodology" shows Schmidt is compiling the functionality of enterprise applications by developing new enterprise applications (a conclusion supported by

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the abstract as well), an area with as much applicability to Applicant's invention as instruction for managing an apple orchard has to selecting apples for the baking of a pie. The Applicant therefore request the Examiner withdraw rejections to these claims.

Claims 9, 14 and 17

In the Office Action, the Examiner rejected claims 9, 14, and 17 as being unpatentable over Stewart (US 2002/0013759), in view of Chandra (US 6,058,389). Examiner has relied on teaching of Stewart regarding aggregation of information from multiple messages which, as stated above under remarks regarding the 35 U.S.C. § 102 rejections of claims 1, 11 and 15, Stewart fails to teach. This teaching is also not found in the Chandra reference. Further, as Stewart does not teach storing of messages or data from messages, there is not a motivation to incorporate a database into the c-hub in which to store the messages. The Applicant therefore request the Examiner withdraw rejections to these claims.

Claims 3 and 21

The Examiner states claims 3 and 21 would be allowable if rewritten in independent form. As applicant has presented arguments above as to why the base claims on which these depend should be allowable, Applicant has chosen to delay rewriting until a determination is made on the above arguments.

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Conclusion

The Applicant respectfully submits that all pending claims are in condition for allowance. However, if the Examiner wishes to resolve any other issues by way of a telephone conference, the Examiner is kindly invited to contact the undersigned at the telephone number indicated below.

Respectfully submitted,

Date: 8 December 2006


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